

CLAIMS

1. A remote terminal in a communication system, comprising:
 - a first receiver operative to receive, process, and digitize a received signal to provide samples; and
 - a rake receiver coupled to the first receiver and operative to receive and process the samples to provide time measurements indicative of times of arrival of transmissions received at the remote terminal from a plurality of base stations, wherein the rake receiver includes a plurality of finger processors, wherein a first set of one or more finger processors is assigned to a first set of one or more base stations in active communication with the remote terminal, wherein a second set of one or more finger processors is assigned to a second set of one or more base stations not in active communication with the remote terminal, and wherein finger processors assigned to base stations in the first and second sets are operative to perform the time measurements on the transmissions received from the base stations.
2. The remote terminal of claim 1, wherein the time measurements are performed at approximately the same instance in time.
3. The remote terminal of claim 1, wherein the time measurement for each base station is based on an earliest arriving multipath received for the base station.
4. The remote terminal of claim 1, wherein the time measurements for the base stations are based on transmissions on a particular channel.
5. A remote terminal in a communication system, comprising:
 - a first receiver operative to receive, process, and digitize a modulated signal to provide samples; and
 - a rake receiver coupled to the first receiver and operative to receive and process the samples to provide time measurements indicative of times of arrival of transmissions received at the remote terminal from a plurality of base stations, wherein the rake receiver includes:
 - a plurality of finger processors, wherein one or more finger processors are assigned to each base station in a first set, and

a searcher element operative to process one or more transmissions from one or more base stations in a second set, and

wherein the finger processors and searcher element are each operative to perform a time measurement for a respective base station in the first or second set, and wherein time measurements for base stations in the first and second sets are performed between updates of a control signal for a reference clock used to perform the time measurements.

6. The remote terminal of claim 5, wherein time measurements for the one or more base stations in the second set are performed sequentially.

7. The remote terminal of claim 5, wherein base stations in the second set are not in active communication with the remote terminal.

8. The remote terminal of claim 5, wherein the time measurements for the base stations in the second set are based on pilot references transmitted by the base stations.